# NuMI Extraction from MI

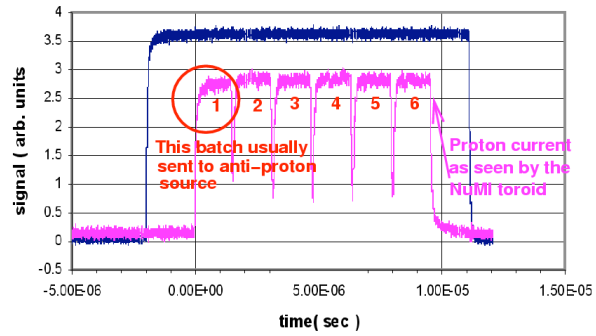
The MI accepts up to 6 proton batches ($\sim 5 \times 10^{12} p$/batch) at 8 GeV from the Booster, accelerates $8 \rightarrow 120$ GeV in $\sim 1.5$ s. MI cycle types:

NuMI only: Every 1.9 seconds. Batches 1-6 $\rightarrow$ NuMI in 10 $\mu$ s

Mixed mode: Every 2.4-4 seconds. Batch "1" (2 merged Booster batches "slip stacked" at $8 \times 10^{12}$ p) $\rightarrow$ $\bar{p}$ source. Batches 2-6 $\rightarrow$ NuMI in 8 $\mu$ s.

Tevatron store cycles:Once per day ($\sim 2$ hrs). 150 GeV $p \rightarrow$ Tevatron and $\bar{p}$ from Pbar source accelerated to 150 GeV and injected into Tevatron.

**Batch structure as measured in NuMI beamline**




FERMILAB'S ACCELERATOR CHAIN